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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,943	06/08/2004	WEN-HSUAN HSIEH	ACMP0199USA	3942

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EXAMINER	
RUSH, ERIC	

ART UNIT	PAPER NUMBER
2609	

NOTIFICATION DATE	DELIVERY MODE
06/18/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/709,943	HSIEH ET AL.	
	Examiner	Art Unit	
	Eric Rush	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 2 & 9 - 10* is/are rejected.

7)☒ Claim(s) *3 - 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8 June 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hirota et al. U.S. Patent No. 7,072,506.

- With regards to claim 1: Hirota et al. teach a method of determining color composition of an image, the method comprising: calculating an intensity value (Hirota et al. Fig. 2 Element 12, Column 10 Lines 4 – 6 Column 10 Lines 42 - 47) and a saturation value for each pixel of the image (Hirota et al. Fig. 2 Element 42, Column 10 Lines 42 – 47); comparing the calculated intensity and saturation values for each pixel with first and second predetermined threshold values (Hirota et al. Column 10 Lines 51 – 60), respectively; labeling pixels with calculated intensity values above the first predetermined threshold value and calculated saturation values above the second predetermined threshold value as color pixels (Hirota et al.

Column 10 Lines 59 – 60); applying a mask to the image and counting the number of color pixels out of the pixels selected by the mask (Hirota et al. Column 5 Lines 15 – 25); and determining that the image is a color image if the number of color pixels selected by the mask is greater than or equal to a predetermined density value. (Hirota et al. Column 3 Lines 3 – 8 & Lines 30 – 34, Column 5 Lines 15 – 25)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 9 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. U.S. Patent No. 7,072,506.

- With regards to claim 9: Hirota et al. teach the method of claim 1. Although Hirota et al. fail to teach wherein the mask has dimensions of three pixels by three pixels Hirota et al. teach the block being of variable dimensions. (Hirota et al. Column 3 Lines 37 – 44) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to select a mask with dimensions of three pixels by three pixels. This modification would have been prompted to allow for uniform threshold levels to be employed over the entire image and within each block that is evaluated.

- With regards to claim 10: Hirota et al. teach the method of claim 1. Although Hirota et al. fail to teach wherein the predetermined density value is equal to seven pixels, Hirota et al. teach a threshold being adjustable to obtain different sensitivity levels of color determination. (Hirota et al. Fig. 2 Element 16, Column 12 Lines 45 – 53) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention of select a predetermined value of seven pixels for labeling a block as color or non-color.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. U.S. Patent No. 7,072,506 in view of Luther et al. U.S. Patent No. 6,005,680.

- With regards to claim 2: Hirota et al. teach the method of claim 1. Hirota et al. fail to teach wherein the intensity value of each pixel is calculated by the formula I=(R+G+B)/3, where I represents intensity value, R, G, and B respectively represent red, green, and blue color levels. Luther et al. teach wherein the intensity value of each pixel is calculated by the formula I=(R+G+B)/3, where I represents intensity value, R, G, and B respectively represent red, green, and blue color levels. (Luther et al. Fig. 9 Element S502, Column 12 Lines 27 – 38) It would have been obvious to one of ordinary skill in the art at the time of the invention to use the calculation of Luther et al. in the invention of Hirota et al. This modification would have been prompted because Luther et al. uses the average RGB value to aid in discriminating between color and non-color images, which is the objective of Hirota et al. This modification would improve the efficiency of calculations by employing a simpler operation for intensity calculations therefore increasing the overall speed of determining the color composition of an image.

Allowable Subject Matter

7. Claims 3 – 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kawano et al. U.S. Patent No. 6,240,203; which is directed to an apparatus for judging whether pixels are color, medium or monochrome then using that information to determine the image type.
- Kojima U.S. Patent No. 5,177,603; which is directed to an apparatus with means for determining if an RGB image is chromatic or achromatic.
- Yeung U.S. Patent No. 6,377,703; which is directed to a method and apparatus for determining whether a portion of an image is color or black and white.
- Shishizuka U.S. Patent No. 5,786,906; which is directed to a method and apparatus which judges whether an image is color or monochromatic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Rush whose telephone number is (571) 270-3017. The examiner can normally be reached on 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ER

Kent Chang

KENT CHANG
PRIMARY EXAMINER